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reference measurement was made and then increasing lengths of 10 cm, 20 cm, and 50 cm were wetted. A final reading was taken after allowing the 50 cm wet length to air dry for one hour. At 1300 nm only a slight change ( $< 1$  dB) in output intensity occurs after an input signal propagates more than 10 meters along the fiber. A significant change of 2.4 dB is detected at 850 nm. The OTDR was able to determine the location of the moisture site to within 1 cm using 850 nm light and the 1300 nm light was capable of being used compensate for transmission changes due to effects other than moisture.

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**In the Claims:**

Please change the claims to read as follows, a marked up version is attached.

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Claim 1 (first amendment). An optical fiber, said fiber having a core and a sheath, said fiber having at least one parameter that varies from an input end of said fiber to an output end thereof in a manner to maintain a constant power loss per unit length over the length of said fiber.

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Claim 7 (first amendment). An optical fiber as in claim 1 wherein said sheath includes a cladding and said one parameter comprises the core/cladding refractive index ratio.

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Claim 27 (first amendment). An optical fiber as in claim 26 said fiber having a light source at an input end thereof.

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**Remarks:**

Fig. 1 has been revised to cure the problem indicated by the Examiner as well as to indicate the output of the fiber. In particular, referring to page 4, line 12 an input “(di)” and an output “(do)” is defined. Fig. 1 erroneously indicated the input as “d1” and